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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,510	10/17/2001	David Thompson	BRDC:038	8112

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EXAMINER

PHAN, JOSEPH T

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,510

Applicant(s)

THOMPSON ET AL.

Examiner

Joseph T. Phan

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7, 13, 14, 16 and 18-20 is/are rejected.
7) ☒ Claim(s) 8-11, 15, and 17 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 12 lines 10-11 recites "identifying each of the at least one data payload.." and line 12 recites "each data payload..". The term each refers to a plurality of data payloads, however the claim does not recite a plurality of data payloads and therefore is confusing if there are multiple payloads in the claim or namely just one. This confusion makes the claim indefinite. Appropriate clarification and/or correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 13-14, 16, and 18-20 rejected under 35 U.S.C 102(e) as being anticipated by Abrol, Patent # 6,507,582.

Regarding claim 1, Abrol teaches a wireless communications network for communicating a data payload, the data payload comprised of data packets, each of the data packets of format for communication over the network, the data payload includes a distinct data type element, the distinct data type element is one of a plurality of data type elements to be sequentially communicated over the network, comprising: a wired network, a wireless channel, a server computer connected to the wired network, a wireless packetized data communications provider equipment connected to the wired network(Fig.5), a client device communicatively connected via the wireless channel to the wireless packetized data communications provider(Fig.5); and a unique global sequence number identifying the data payload, the unique global sequence number being assigned by the server computer to the data payload and included by the server computer in at least one data packet comprising the data payload *Fig.6-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*); wherein the data payload is communicated on the wireless channel(506 Fig.5) together with the unique global sequence number as part of the data payload(*Fig.1, Fig.6-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 2, Abrol teaches the wireless communications network of claim 1, further comprising a detector for determining whether any payload has not been received by the client device by means of the global sequence number(*col.6 line 59-col.7 line 36*)

Regarding claim 3, Abrol teaches the wireless communications network of claim 2, wherein the detector is selected from the group consisting of: a software and a hardware of the client device(Fig.5)

Regarding claim 4, due to the 112 confusion above, Abrol teaches a wireless communications network for communicating a data payload, the data payload comprised of data packets, each of the data packets of format for communication over the network, the data payload includes a distinct data type element, the distinct data type element is one of a plurality of data type elements to be sequentially communicated over the network, comprising:

a wired network, a wireless channel, a server computer connected to the wired network, a wireless packetized data communications provider equipment connected to the wired network(Fig.5),

a client device communicatively connected via the wireless channel to the wireless packetized data communications provider(Fig.5); and

a respective global sequence number identifying each of at least one data payload, the respective global sequence number being assigned by the server computer to the data payload and included by the server computer in at least one data packet comprising the data payload (*Fig.6-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*); each of the respective at least one data payload is communicated on the wireless channel together with the respective global sequence number (*Fig.6-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*); wherein the data payload is communicated on the wireless channel(506 Fig.5) together with the respective global sequence number as part of the data

payload(*Fig.1, Fig.6-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*); wherein the first client device communicates to the server computer an identifier of any payload that is not received by the client device, based on the global sequence number(*col.6 line 59-col.7 line 36*)

Regarding claim 5, Abrol teaches the wireless communications network of claim 2, wherein the wired network is the Internet(*col.1 lines 42-54*).

Regarding claim 6, Abrol teaches the wireless communications network of claim 1, wherein the wireless channel is a cellular packetized data system(*col.3 lines 24-51*).

Regarding claim 7, Abrol teaches the wireless communications network of claim 1, wherein the wireless channel is a CDPD system(*col.3 lines 24-51*).

Regarding claim 8, Abrol teaches the wireless communications network of claim 1, further comprising a compressor for compressing together headers of each payload(*Fig.1-2; the headers are "compressed"/shortened*).

Regarding claim 9, Abrol teaches the wireless communications network of claim 8, wherein the compressor is the server computer(*Fig.5*)

Regarding claim 10, Abrol teaches the wireless communications network of claim 1, further comprising a comparator for determining whether a time differential between receipts by the client device of every other sequential payload exceeds a time constant indicative of an effective data receipt rate of the client device(*Fig.1-2*)

Regarding claim 11, Abrol teaches the wireless communications network of claim 10, wherein the comparator is selected from a group consisting of: a software and a hardware at the client device(*Fig.5*).

Art Unit: 2614

Regarding claim 12, Abrol, due to the 112 rejection above, teaches the wireless communications network of claim 10, wherein the client device assumes any payload loss occurs on the wire side if the time differential does not exceed a multiple of an effective data transmit rate of the server computer and otherwise on the wired side(Fig.4).

Regarding claim 13, Abrol teaches the wireless communications network of claim 1, further comprising:

a compressor for compressing together all data headers of payloads of information at the server computer (*Fig.1-2*).

Regarding claim 14, Abrol teaches the wireless communications network of claim 13, further comprising:

a transmitter at the server computer for transmitting the compressed data headers of payloads(*Fig.1-2 and Fig.4*).

Regarding claim 15, Abrol teaches the wireless communications network of claim 1, further comprising:

a bundling rate determiner at the client device, wherein an outstanding number of bytes not yet received by the client device is divided by an effective data receipt rate of the client device, and the server computer adjusts a send rate of the server computer based on a multiple of the result of the division(*Fig.1, Fig.5-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 16, Abrol teaches a method of wireless communications, comprising the step of:

Art Unit: 2614

assigning at least one payload a respective global sequence number;
including the respective global sequence number in at least one data packet comprising each data payload; and transmitting the at least one data payload together with the global sequence number(*Fig.1, Fig.5-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 17, Abrol teaches the method of claim 16, further comprising:
receiving each of next successive payloads, determining a time differential between receipts of the next successive payloads;
comparing the time differential to a multiple of a server transmit rate;
wherein if the time differential exceeds the multiple then payload loss is assumed occurring on a wireless portion of a network and otherwise on a wired portion of the network(*Fig.1, Fig.5-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 18, Abrol teaches a method of wireless communications, comprising the step of:
compressing together more than one header of a payload of information at the server computer; wherein the payload includes a distinct data type element, the distinct data type element is one of a plurality of data type elements to be respectively communicated over the network as information of the payload (*Fig.1, Fig.5-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 19, Abrol teaches the method of claim 18, further comprising the step of transmitting together all headers as so compressed(*Fig.1, Fig.5-7, col.3 lines 24-51, col.12 line 64-col.13 line 16*).

Regarding claim 20, Abrol teaches a method of wireless communications, comprising the steps of: determining at a client device the number of bytes outstanding not yet received, dividing the number of bytes by an effective receipt data rate of the client device; and varying a send rate of a server computer according to a multiple of the result of the step of dividing (*Fig. 1, Fig. 5-7, col. 7 line 24-col. 8 line 42, col. 3 lines 24-51, col. 12 line 64-col. 13 line 16*).

Allowable Subject Matter

Claims 8-11, 15, and 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 20, as admitted by the applicant, Abrol's frames comprise of bytes. Since Abrol's frames are used to vary operations, Abrol reads on the claim as currently recited. The claim does not distinguish the difference between bytes and frames and therefore the frames/bytes outstanding in Abrol are employed for varying the send rate.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

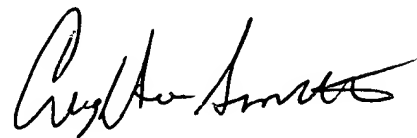
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph T. Phan whose telephone number is (571) 272-7544. The examiner can normally be reached on Mon-Fri 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTP
November 27, 2006



**CREIGHTON SMITH
PRIMARY EXAMINER**